

(No Model.)

E. TREASURE.
BOX LIFTER.

No. 460,686.

Patented Oct. 6, 1891.

Fig. 1.

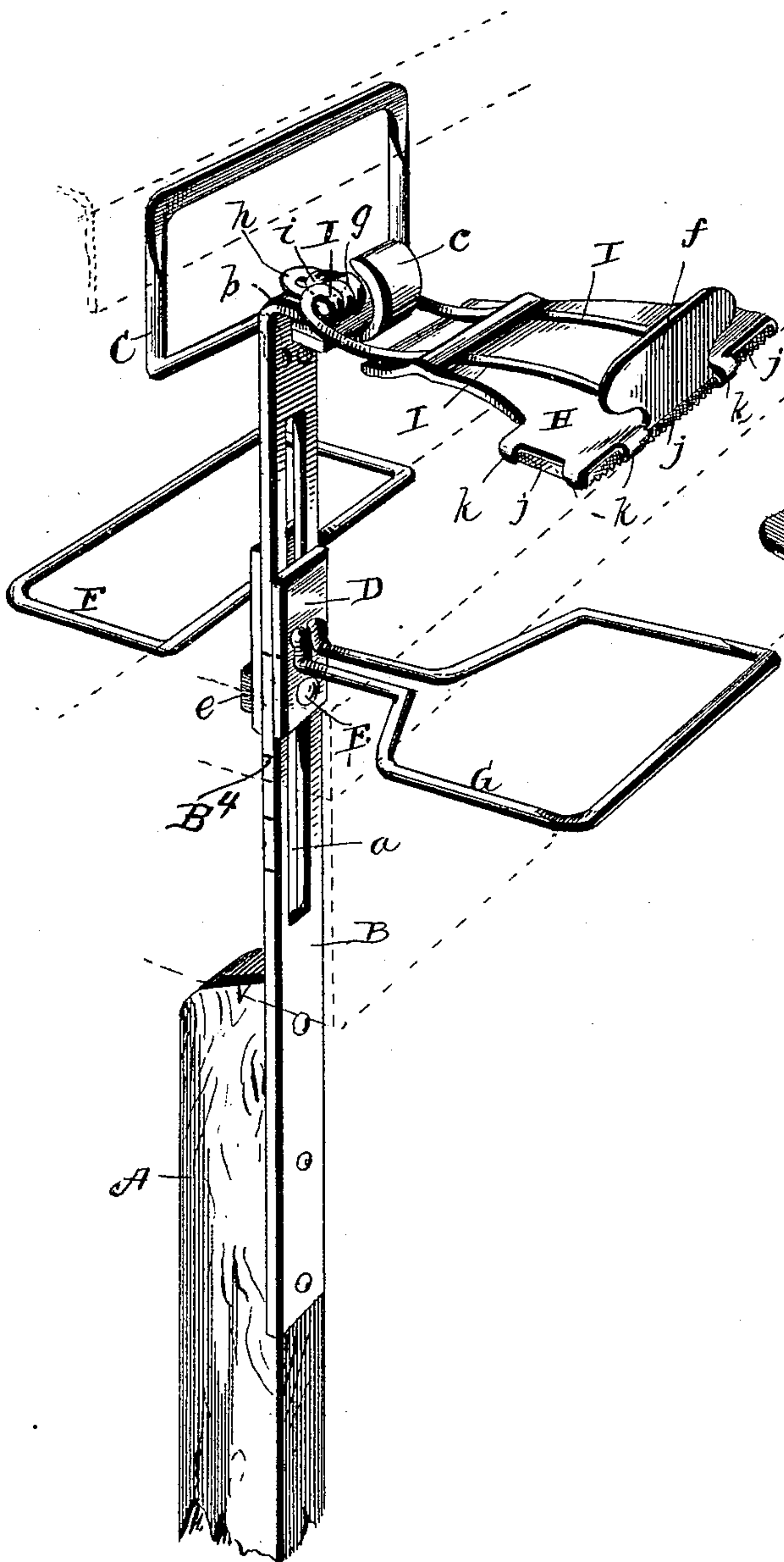
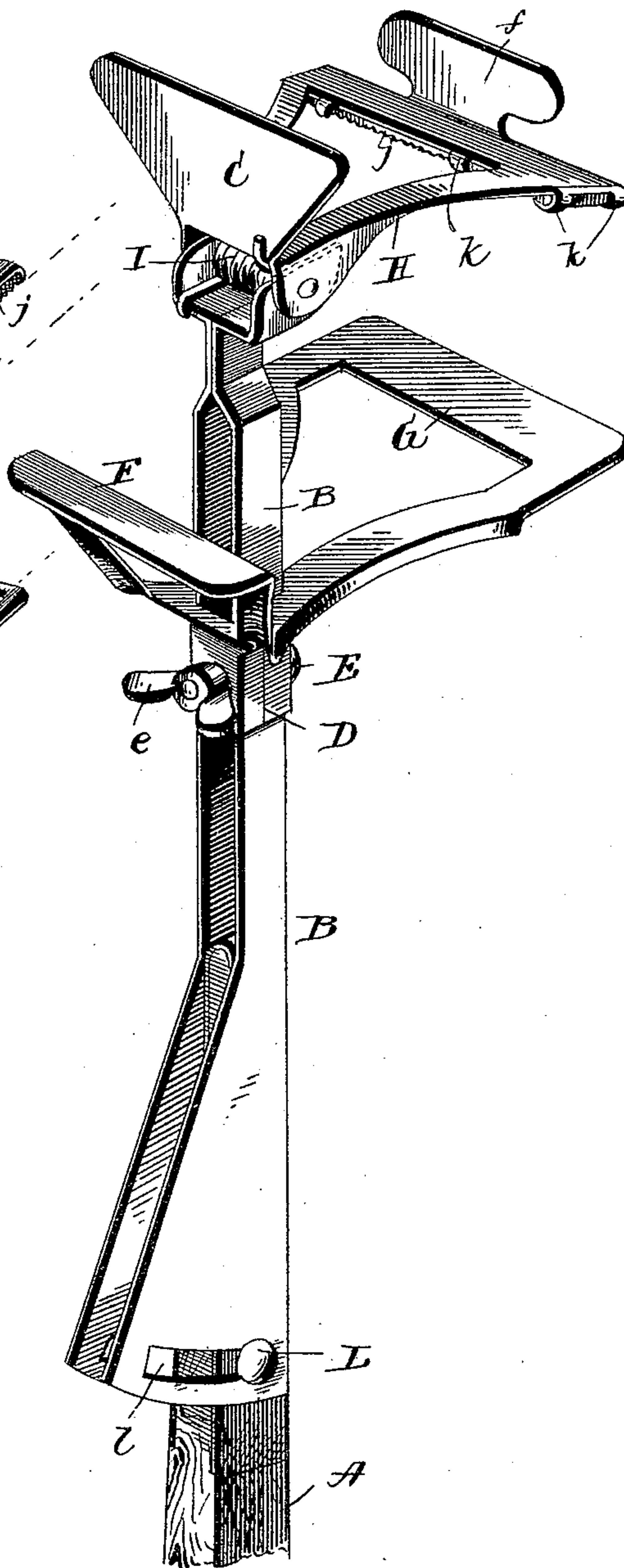


Fig. 2.



Witnesses
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EDWIN TREASURE, OF ST. PAUL, MINNESOTA.

BOX-LIFTER.

SPECIFICATION forming part of Letters Patent No. 460,686, dated October 6, 1891.

Application filed July 20, 1891. Serial No. 400,109. (No model.)

To all whom it may concern:

Be it known that I, EDWIN TREASURE, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented certain new and useful Improvements in Box-Lifters; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in devices for lifting boxes, designed, primarily, for lifting boxes from a shelf or high position, and is of that class wherein provision is made for the insertion of a lip or extension between the depending portion of the cover and the body of the box.

It has for its objects, among others, to provide a simple, cheap, and durable box-lifter of this character which shall be efficient in use and which is capable of lifting the boxes in the usual way with this class of devices, and also adapted for grasping the box as one would with the hand. I provide a device for attachment to a pole or rod, which attachment is adjustable on the arc of a circle to change the inclination of the lip or extension and also provided with adjustable support or supports. A spring-actuated jaw is provided, which serves with one of the supports to enable the box to be grasped as by the hand.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be specifically defined by the appended claim.

The novelty in the present instance resides in the peculiarities of construction and the combinations, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then particularly pointed out in the claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, and in which—

Figure 1 is a perspective view showing the

preferred form of my improvement. Fig. 2 is a like view of a modified form.

The essential features of both constructions are essentially the same and their operation similar, differing only in details of construction.

Referring now to the details of the drawings by letter, in Fig. 1 A designates a pole or rod, which may be of any desired length and size or style. To the upper end of this rod or pole is attached in any suitable manner the bar B, which is longitudinally slotted, as shown at *a*, and the upper end is bent substantially at a right angle to form the horizontal portion *b*. At the upper end, near the bend, there is secured to this bar a lip or extension C, which may be attached in any desired manner and may extend vertically or be inclined slightly from a perpendicular, as may be found most expedient. The free end of the horizontal portion of the bar B is curled up, as shown at *c*, to provide a sort of housing for the spring, hereinafter described.

D is a slide adapted to be adjusted on the bar B, and this may be accomplished in any suitable manner—as, for instance, by a screw E, with a nut *e*, as shown in Fig. 1. This slide carries upon opposite sides of the bar the substantially horizontal supports F and G, which are upon different horizontal planes, as shown.

H is a grasping-arm. It is turned up at its outer end, as shown at *f*, and I is a wire spring having its ends passed through holes in this jaw and held thereto, the spring being provided with coils *g* and a loop *h*, which is held to the horizontal portion of the bar B by a screw *i*, the coils being protected by the curved end of the said horizontal portion. The under side of this jaw is preferably provided with a grasping-surface *j* of any suitable material—as roughened rubber—held thereto in any suitable manner, as by forming bendable lugs *k* on the jaw and bending them upon the rubber, as will be readily understood.

The operation will be readily understood from the foregoing description when taken in connection with the annexed drawings. The lip C and support F act in the manner shown in Fig. 1, the lip extending between the depending portion of the cover of the box and

the body thereof when the covers of the boxes are sufficiently strong. When the cover of the box is not strong or the box is heavy, then the box is grasped between the support G and the grasping-jaw, as indicated by dotted lines. 5 The bar B may be provided with a scale, as shown, said scale B⁴ corresponding with the different sizes of boxes, so that one can readily adjust the support to the size of box to be 10 handled.

The construction shown in Fig. 2 is substantially the same as that of Fig. 1, except that the parts are of sheet metal instead of wire and the bar B is bifurcated and formed with a 15 curved slot *l*, through which passes a thumb-screw L, so that the bar may be swung round when for any cause it is desirable to have the bar stand at an angle to the rod or pole. The supports F and G are adjustable, but in a 20 slightly different manner. Both forms are good, and either may be employed. In Fig. 2 the lip or extension C is formed integral with the grasping-jaw, which is formed of

sheet metal, as shown. The manner of attaching the spring is different; but its function 25 and operation are the same. In both cases the outer end of the grasping-jaw is provided with an upwardly-extending lip, as shown.

Various modifications in detail may be resorted to without departing from the spirit of 30 the invention or sacrificing any of its advantages.

What I claim as new is—

The device comprising the rod or pole, the bar thereon, the independently-adjustable 35 horizontal supports, the vertical lip, and the spring-actuated hinged grasping-arm, all substantially as shown and described, and for the purpose specified.

In testimony whereof I affix my signature in 40 presence of two witnesses.

EDWIN TREASURE.

Witnesses:

GEORGE H. HURD,
JOHN H. HOVELSRUD.